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OCCUPATIONS OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN THE STATE OF WASHINGTON.

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THE OBJECTIVES OF THE STUDY WERE TO DETERMINE THE OCCUPATIONAL STATUS OF FORMER STUDENTS, THE EXTENT TO WHICH THEIR EMPLOYMENT WAS RELATED TO TRAINING IN VOCATIONAL AGRICULTURE, THE EFFECT OF ENROLLMENT TENURE ON EVENTUAL EMPLOYMENT, AND THE EMPLOYMENT RATE. THE SAMPLE FROM 12 SCHOOLS INCLUDED 794 FORMER STUDENTS WHO GRADUATED OR DROPPED OUT OF HIGH SCHOOL DURING THE SCHOOL YEARS 1955-56, 1958-59, 1961-62, AND 1964-65. OF THE FORMER STUDENTS, 10.78 PERCENT WERE IN FULL- OR PART-TIME FARMING, 15.75 PERCENT IN OFF-FARM AGRICULTURAL OCCUPATIONS, AND 11.95 PERCENT IN MECHANICAL OCCUPATIONS. OF THE TOTAL SAMPLE, 24.19 PERCENT WERE UNAVAILABLE FOR EMPLOYMENT, MILITARY SERVICE BEING THE PRINCIPAL REASON. UNEMPLOYMENT WAS 0.33 PERCENT, REPRESENTING ONLY TWO INDIVIDUALS. LESS THAN FOUR PERCENT OF THE FORMER STUDENTS WERE UNKNOWN TO THE DATA GATHERERS. IT WAS CONCLUDED THAT (1) 38.47 PERCENT OF THE FORMER STUDENTS WERE IN OCCUPATIONS RELATED TO VOCATIONAL AGRICULTURE, (2) LONGER ENROLLMENT IN THE PROGRAM SEEMED TO INCREASE CHANCES OF EVENTUAL EMPLOYMENT RELATED TO VOCATIONAL AGRICULTURE, AND (3) UNEMPLOYMENT AMONG FORMER STUDENTS WAS NEGLIGIBLE. (JM)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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OCCUPATIONS

PREFACE

The study herein described is the result of negotiations initiated by Bert L. Brown, Washington State Director of Agricultural Education, with Washington State University's Department of Education.

The helpful advise of Mr. Brown, Dr. Lloyd Urdal, Chairman of the Department of Education; Dr. C. Oscar Loreen, Professor of Agricultural Education; and Mr. Gilbert Long, Assistant Professor of Agricultural Education, is gratefully acknowledged.

Vocational agriculture teachers, without whose assistance this study would have been impossible, collected the data in their respective school districts and included: Louis Anderson, Mead; John Elliot, Reardan; Fred Frohs, Issaquah; Harold Gilkey, Longview; Roland Hallstrom, Marysville; Jesse Helm, Wenatchee; Keith Kirkbride, Quincy; Fred Merrill, Chewelah; Arthur Nelson, Castle Rock; Stanley Peterson, Granger; Louis Poppe, Menlo; and Keith Sarkisan, Arlington.

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OCCUPATIONS OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN THE STATE OF WASHINGTON

Joel H. Magisos[1]

INTRODUCTION

The purpose of this study was to investigate the occupational status of former vocational agriculture students graduating or dropping from Washington high schools during the school years 1955-56, 1958-59, 1961-62, and 1964-65. Consideration is given to the relationship of training to eventual occupation; the employment rate; and the apparent effect of vocational agriculture enrollment tenure on eventual employment.

Background of the Study

The occupational status of former students of vocational agriculture is of vital concern to those who direct, supervise, and teach vocational agriculture. Studies of this nature were encouraged by M. D. Mobley, Executive-Secretary of the American Vocational Association, in a letter to all vocational agriculture state program directors.[2] Bert L. Brown, Washington State Director of Agricultural Education, initiated negotiations with the Washington State University Department of Education to undertake such a study in the state of Washington.

Interest in the occupational status of former vocational agriculture students is prompted by genuine interest in the evaluation of a program as expressed in the words of Dr. Orville Thompson:

> "One of the best measures of the effectiveness of any vocational education curriculum is the occupational status of its graduates . . ."[3]

Interest has been stimulated by attacks upon the current vocational education programs in the popular press, notably an article by Chase in which he contended that the educational system concentrates its efforts on the college-bound and offers obsolete training programs to youth destined for the labor market.[4] He was particularly critical of programs of vocational agriculture in light of the lesser impact of agriculture on the labor force. The lessened impact of agriculture on the labor force cannot be denied. Venn cites an

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[1]Assistant Professor of Agricultural Education, Department of Education, Washington State University, Pullman, Washington.

[2]M. D. Mobley, Executive-Secretary, American Vocational Association, Letter dated June 8, 1964, Washington, D. C.

[3]Orville Thompson, "Agricultural Education in the Secondary Schools of California," Bulletin of the California State Department of Education, Vol. 27, May 1958.

[4]Edward T. Chase, "Learning to be Unemployable," Harper's Magazine, Vol. 226, No. 1335, April 1963, pp. 30-44.

8% increase in vocational agriculture enrollments during a period when there was a loss of three million agricultural jobs, though farm production increased 30% during this same period.[5] The United States Department of Agriculture recently published data indicating that the percentage of the total population on farms decreased from 34.8% in 1900 to 6.4% in 1965, while the number of people supplied by one agricultural worker increased from 6.9 to 33.2.[6] In 1963, the President's Panel of Consultants on Vocational Education recommended an increase in emphasis on the off-farm agricultural occupations.[7]

Related Literature

Earlier studies of the occupational status of former vocational agriculture students have provided data pertinent to other geographical areas and during prior periods of time. Saunders, in a study of former students from 1918 to 1955, found a steady decline in farming by former vocational agricultural students.[8] An examination of data in Table I will provide a summary of nine studies published during the most recent twenty-year period.

Dr. Mobley's letter to state directors suggested an opportunity to utilize data from current studies for the promotion of vocational agriculture programs if the employment rate of former vocational agriculture students proves superior to that of those students without the benefit of the program. Such data, even if negative, would be helpful for use in counseling students considering enrollment. More importantly, interpretation of the data may be helpful to those engaged in modifying curriculum.

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[5]Grant Venn, Man, Education and Work, American Council on Education, 1964, p. 74.

[6]United States Department of Agriculture, Handbook of Agricultural Charts, 1965, U. S. D. A., Government Printing Office, 1965.

[7]Benjamin J. Willis, et al., Education for a Changing World of Work, Office of Education, United States Department of Health, Education and Welfare, 1963.

[8]H. W. Saunders, A Follow-up Study of Students of Vocational Agriculture in Virginia, 1818-1955, Virginia Polytechnic Institute, January 1959.

TABLE 1

A SUMMARY OF THE FINDINGS OF NINE STUDIES ON THE OCCUPATIONAL STATUS OF FORMER VOCATIONAL AGRICULTURE STUDENTS

Study		Year	Occupational Status		
Investigator	State		Farming %	Agric. Related %	Other %
Rogers[1] *	Louisiana	1947	38.8	16.7	44.5
Haugen[2] *	Washington	1951	47.8	13.9	39.1
Ekstrom[3]	Missouri	1957	26.0	9.0	65.0
Rougeau[4]	Missouri **	1957	31.3	10.1	58.6
Siler[5]	Arizona **	1957	37.0	15.0	48.0
Wilson[6]	Washington **	1961	37.6	12.1	50.3
Staff Study[7]	Virginia	1963	32.9	13.6	63.5
Johnsen[8]	Minnesota	1964	41.7	13.8	44.5
Williams[9]	Arizona	1965	28.3	16.4	55.3

* Sample not representative of the total population of vocational agriculture students in the state.

** Limited to a less-than-state-wide geographic area.

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[1] J. D. Rogers, Occupational Study of American Farmers in Louisiana from 1933 to 1947, Master's Thesis, Louisiana State University and A. and M. College, 1947.

[2] E. B. Haugen, A Survey of State Farmer Recipients From 1941 Through 1945, Master's Thesis, Washington State University, 1951, 114 pp.

[3] G. F. Ekstrom, "Occupational Survey of Former Students," Agricultural Education Magazine, Vol. 30, August 1957, p. 44.

[4] A. B. Rougeau, "A Ten Year Study of Former Students of Vocational Agriculture in Six Reorganized School Districts in Missouri, 1946 Through 1955," University of Missouri Bulletin, Vol. 59, No. 39, November 1958, 11 pp.

[5] D. R. Siler, A Study of the Vocational Status of Former Students of Vocational Agriculture from Coolidge High School, Problem, M. Agr. Ed., University of Arizona, 1957.

[6] J. M. Wilson, An Occupational Survey of Former Vocational Agriculture Students of High Schools in the Wheat Area of Washington State, Master's Thesis, Washington State University, 1961, 38 pp.

[7] Staff Study, A Follow-Up of Students of Vocational Agriculture in Virginia, State Department of Education, Richmond, 1963.

[8] D. G. Johnsen, "Employment Status of Former Minnesota Vo-Ag Graduates," The Visitor, Vol. 52, No. 4, October 1965, pp. 1-4.

[9] R. Williams, Occupations of Former Students of Vocational Agriculture in Arizona, University of Arizona, Report No. 227, 1965.

PROBLEMS UNDER INVESTIGATION

Purpose of the Study

The primary purpose of this study was to determine the current occupational status of former students of vocational agriculture and to categorize their occupations into major components which relate to the vocational agriculture programs.

Definitions

Occupational status, for the purpose of this study, will be defined as the current employment of the former student in question.

Vocational agriculture is the federally aided, state-supervised program of agricultural instruction found in 139 Washington public high schools.

Problems

Stated in the form of questions, the major problems under investigation include:

1. To what extent are former vocational agriculture students employed in fields related to their training in vocational agriculture?

2. Does enrollment tenure in vocational agriculture programs have an influence on eventual occupational status?

3. Is the employment rate of former vocational agriculture students favorable?

DESIGN OF THE STUDY

Sources of Data

The data were requested of vocational agriculture teachers that had served their respective school districts continuously during the period under investigation. It was recommended that they rely upon grade record books, attendance registers, student transcripts, and departmental records in establishing lists of former students of vocational agriculture who graduated or dropped out of high school during the school years 1955-56, 1958-59, 1961-62, 1964-65. It was suggested that they rely upon general and departmental records, their own knowledge, and upon the knowledge of professional associates, parents, and others to ascertain the current occupational status of each of the subjects upon the list.

Of 139 local school districts currently operating vocational agriculture programs, 54 have vocational agriculture teachers that have been in the employ of the district during the entire period of investigation. The 54 schools were divided into two lists representing Western and Eastern Washington geographical areas. Twenty-five or 37.88% of the schools in Western Washington were on one list. The mean school enrollment size was 893, the median 808. Twenty-nine or 39.18% were on the Eastern Washington list. The mean school enrollment size was 715, the median 558.

The two lists were ranked by school enrollment size and each divided into two similarly sized lists. From each of the four lists, the school with the median size was selected, as well as the third largest school and the third smallest school. This sample was found to have a mean school enrollment size of 764 compared to a mean size of 797 for the fifty-four schools in the group of schools under investigation. Median sizes compared 632.5 for the sample to 645 for the population.

The sample was found to represent Eastern and Western Washington; large, medium, and small school enrollment sizes; and communities with both rural and urban characteristics. In the judgment of the investigator, the sample is comparable to the population, and data can be expected to represent the nature of all the vocational agriculture programs in the state.

Procedure for Data Collection

After selection of the schools by the techniques described in the previous section, the teacher concerned was advised of the selection of his school by letter. The letter invited the teacher to participate in the study and stressed the urgency of the necessity for cooperation (Appendix A). Inducement was offered in three forms: cooperating teachers were promised a separate analysis for their school district with which they might make comparisons to the total sample, the state program director made a separate request, and an honorarium was offered for diligent participation. The initial request was phrased in a manner that Washington State University and State Board for Vocational Education involvement was apparent. Letters to administrative authorities in each district explained the sponsorship, purpose, and nature of the study.

Survey forms were provided as a means of identifying former students involved in the study and upon which to record their accumulative grade point average, year leaving school, current employment status in several categories, employer's address, and other data (Appendix B). Detailed instructions were provided in an Investigator's Pamphlet.

Follow-up letters were directed to each participating teacher before the deadline imposed for completion. Excellent cooperation by all teachers was experienced. Only one school was withdrawn from the study, by mutual consent, due to the fact that all high school boys have been required to enroll in vocational agriculture during at least part of the period under investigation. A replacement of similar school enrollment size, geography, and agricultural orientation was selected and included in the study.

Assumptions and Limitations

A major assumption in this study is that the data collected from a sample of schools in the state will allow generalization from the sample to the population. Further, it is assumed that the characteristics of the program and its enrollees with which the vocational agriculture teacher has been associated continuously over at least a ten-year period do not appreciably differ from other programs and enrollees in which the tenure of the teacher is shorter. It is also assumed that data provided by vocational agriculture teachers were accurately determined.

A limiting factor is the use of a sample of 794 former students out of what may logically have been a population of 9, 197 former students or approximately an 8. 6% sample. The collection of data in schools in which the vocational agriculture teacher had been employed continuously for ten years may have in some way affected the data. The inadequacy of some school records may have had its effect on the original lists of former students, but it is believed that this would not affect percentages.

FINDINGS

Table 2 provides the frequencies and percentages of the distribution of former vocational agriculture students in several broad categories of occupations. A more detailed subdivision of each of the broad categories is provided in Tables 3, 4, 5, 6, and 7. A detailed composite of all categories is incorporated in Appendix C.

TABLE 2

DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65, BY OCCUPATIONAL CATEGORIES

Occupational Category	Number of Students	Percentage	Percentage Excluding Those Unavailable For Employment
Farming *	65	8.18	10.78
Off-Farm Agricultural Occupations	95	11.96	15.75
Mechanical Occupations	72	9.07	11.94
Non-Agricultural Occupations	372	46.85	61.69
Unavailable for Employment	192	24.07	
Unemployed	2	.25	.33
Unknown	31	3.90	5.14
Total	829 *	104.28 **	105.64 **

* Including those in part-time farming, also in another category.
** Larger than 100% due to part-time farmers.

The small number of former vocational agriculture students engaged in full-time and part-time farming, as revealed in the first occupational category of Table 2 and in Table 3, was lower than was expected as a result of studying percentages in other studies in Table 1 in the Introduction. The state of Washington was involved in a massive industrial expansion at the time of this study and this fact may have had some implications. The scope of farm operations and resultant capitalization is large in the state of Washington. It is speculated that persons entering full-time farming are not doing so until later than 29 years of age, the age of the oldest group under investigation.

TABLE 3

DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON IN THE FARMING OCCUPATION SUBCATEGORY WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65

Occupational Subcategory	Number of Students	Percentage	Percentage Excluding Those Unavailable For Employment
Full-time farming	31	3.90	5.14
Part-time farming *	34	4.28	5.64
Total	65	8.18	10.78

* Also reported in another occupational category.

Those engaged in off-farm agricultural occupations at 11.96%, or 15.75% when excluding those unavailable for employment, is not unlike figures revealed in previous studies. Included in this group is a subcategory in Table 4 for those in universities, community colleges, and vocational-technical schools studying some phase of agriculture. The service and supply occupations was the area with the largest percentage of former vocational agriculture students in the off-farm agricultural occupations category, at 5.54%.

TABLE 4

DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON IN THE OFF-FARM AGRICULTURAL OCCUPATION SUBCATEGORY WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65

Occupational Subcategory	Number of Students	Percentage	Percentage Excluding Those Unavailable For Employment
Service and Supply	44	5.54	7.30
Processing and Marketing	7	.88	1.16
Professional and Technical	9	1.13	1.49
Colleges and Vocational Schools	35	4.41	5.80
Total	95	11.96	15.75

Occupations related to the farm mechanization instructional phase of the vocational agriculture program claimed 9.07%, or 11.94% when excluding those unavailable for employment, of the former vocational agriculture students under investigation as illustrated in Table 5. The largest percentage (3.53%) was in the machinist and metal working trades, probably because of the emphasis of this area in the vocational agriculture program.

TABLE 5

DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON IN THE MECHANICAL OCCUPATION SUBCATEGORY RELATED TO TRAINING WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65

Occupational Subcategory	Number of Students	Percentage	Percentage Excluding Those Unavailable For Employment
Building Construction	5	.63	.83
Woodworking	11	1.39	1.82
Mechanics	14	1.76	2.32
Machinist and Metal	28	3.53	4.64
Machine Operation	9	1.13	1.49
Electrical	5	.63	.83
Total	72	9.07	11.94

The 372 former students in the nonagricultural occupations category were the largest number in the study and list all of those in business and industry as employees and proprietors; technical and professional people serving as employees or in private practice; and those in universities, colleges, community colleges, and vocational-technical schools studying nonagricultural subjects. At 46.85%, or 61.69% when excluding those unavailable for employment, this percentage is higher than the percentages reported in earlier studies in Table 1. The nine studies in Table 1 reported a mean percentage of 52.08% in "Other" occupations, with a range from 39.1% in a study of former F.F.A. State Farmer degree holders in Washington to 65.0% in a study conducted in Missouri. All of the previous studies, as reported in Table 1, include all except the agricultural occupations in the "Other" category and may include those unavailable for employment, unemployed, and unknown. Mechanical occupations were not included in the agricultural categories in the earlier studies.

TABLE 6

DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON IN THE NONAGRICULTURAL OCCUPATION SUBCATEGORY WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65

Occupational Subcategory	Number of Students	Percentage	Percentage Excluding Those Unavailable For Employment
Business and Industry	247	31.11	40.96
Professional and Technical	35	4.41	5.80
College and Vocational School	90	11.33	14.93
Total	372	46.85	61.69

The percentage (21.92%) in military service is high, probably due to the heavy selective service calls during the Viet Nam conflict. Whether those in military service were taken in greater numbers from any one occupational category is mere speculation, as no evidence was gathered on the occupations of those in military service just prior to their enlistment or induction. It might be speculated that those in farming were called into the service in greater relative numbers than those in some form of postsecondary education because the percentage in farming does increase among those graduating or dropping from high school later in the ten-year period. This is shown in Table 7. Because higher percentages of those graduating or dropping from high school more recently are in military service, it is obvious that more are enlisting or being inducted into military service shortly after the completion of high school.

TABLE 7

DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON UNAVAILABLE FOR EMPLOYMENT WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65

Reason for Unavailability for Employment	Number of Students	Percentage
Military Service	174	21.92
Deceased	13	1.64
Disabled	3	.38
Other	1	.13
Total	192	24.07

TABLE 8

OCCUPATIONAL DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65, BY SCHOOL YEARS

Occupational Category	Year Graduating or Dropping from High School							
	1955-56		1958-59		1961-62		1964-65	
	No.	%	No.	%	No.	%	No.	%
Farming *	19	10.05	18	10.23	15	8.10	13	5.33
Off-Farm Agricultural Occupations	11	5.82	16	9.09	27	14.59	41	16.80
Mechanical Occupations	30	15.88	16	9.09	12	6.48	14	5.74
Nonagricultural Occupations	109	57.67	95	53.98	69	37.30	99	40.58
Unavailable for Employment	14	7.41	28	15.91	65	35.15	84	34.43
Unemployed	--	--	--	--	1	.54	1	.41
Unknown	17	8.99	10	5.68	4	2.16	--	--
Total *	189	105.82	176	103.98	185	104, 32	244	103.29

* Part-time farmers are reported twice, resulting in totals exceeding 100%.

Data in Table 8 show the difference between former vocational agriculture students graduating or dropping from high school at different times. It may be noted that the percentage of individuals in full-time and part-time farming drops from an average of 10. 14% in the earliest two periods to 6. 71% in the later two periods. This would support the conclusion that there is an infringement of military service on the younger group's occupational plans. The increase in farming by the older group as they reach an age when their education and military service is concluded is evident. The percentage in the off-farm agricultural occupations increases from 5. 82% in the 1955-56 group to 16. 8% in the 1964-65 group. The nonagricultural occupations category seems to decrease from the group of earlier graduates and drop-outs to the latest group. Those unavailable for employment is the highest in the 1961-62 group, followed closely by the 1964-65 group.

The percentage of those unemployed, in Table 8, at .25% or .33% when excluding those unavailable for employment shown in Table 2, is very low and involves only two individuals. Both individuals graduated or dropped out in the last half of the period under study and would be in the youngest group. These two individuals were from the groups having either one or two years of vocational agriculture as shown in Table 9.

Farming, both full-time and part-time, was most frequent among the group having four years of vocational agriculture enrollment as shown in Table 9. The data in Table 9 also indicate that those with only one year of vocational enrollment had the lowest frequency in the group in the off-farm agricultural occupations. This held true, too, in the mechanical occupations related to the farm mechanization instructional phase of vocational agriculture. The frequency of those in the nonagricultural occupations seems fairly constant and seems to bear no relationship to the number of years enrolled in vocational agriculture.

TABLE 9

OCCUPATIONAL DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65, BY NUMBER OF YEARS OF VOCATIONAL AGRICULTURE ENROLLMENT

Occupational Category	Years of Vocational Agriculture							
	1		2		3		4	
	No.	%	No.	%	No.	%	No.	%
Farming	5	5.32	9	6.43	8	4.44	43	11.31
Off-Farm Agricultural Occupations	6	6.38	16	11.43	27	15.00	46	12.10
Mechanical Occupations	6	6.38	12	8.57	13	7.23	41	10.79
Nonagricultural Occupations	45	47.87	63	45.00	85	47.21	179	47.10
Unavailable for Employment	26	27.67	40	28.56	38	21.12	87	22.90
Unemployed	1	1.06	1	.71	--	--	--	--
Unknown	8	8.51	6	4.29	11	6.11	6	1.58
Total *	97	103.19	147	104.99	182	101.11	402	105.78

* Part-time farmers reported in two categories resulting in totals exceeding 100%.

SUMMARY AND CONCLUSIONS

Summary

This study has provided a description of the current occupational status of former vocational agriculture students in several broad categories. General observation of the data reveals the following information:

1. The percentage of former vocational agriculture students in full-time and part-time farming is only 10.78% when excluding for computation, those unavailable for employment. The percentage in farming increases proportionate to the number of years of enrollment in vocational agriculture and to the time since finishing high school.

2. The percentage of former vocational agriculture students currently employed in off-farm agricultural occupations is 15.75%, when excluding those unavailable for employment. A smaller percentage with only one year of vocational agriculture are in the off-farm agricultural occupations; those most recently completing their high school education are in these occupations with greater frequency.

3. Those in mechanical occupations related to training received in the farm mechanization phase of the vocational agriculture program were most numerous among the group having four years of vocational agriculture (10.79%) and among those completing high school earliest in the period under study (15.88%). When excluding those unavailable for employment, 11.94% were in the mechanical occupations.

4. The percentage in nonagricultural occupations is fairly constant in terms of the number of years of enrollment in vocational agriculture. Those completing high school more recently were in the non-agricultural occupations to a lesser extent than those completing high school earlier. When considering the entire sample, with the exception of those unavailable for employment, 61.69% were in the nonagricultural occupations.

5. Of the total sample, 24.19% were unavailable for employment. At 21.92%, military service was the principal reason for unavailability, the largest share having completed high school in the 1961-62 or 1964-65 school year (32.44% and 32.38%). The former students with fewer years of enrollment in vocational agriculture were more frequently in military service.

6. Unemployment among former vocational agriculture students was only 0.33%, when excluding those unavailable for employment. This percentage represents only two individuals. They completed high school in the last half of the ten-year period and had been enrolled in vocational agriculture only one or two years.

7. Of 794 former students in the sample, only 31 or 3.9% of the total sample were classified as unknown by the data collectors.

Conclusions

In terms of the problems under investigation, the following conclusions may be advanced:

1. The percentage of former vocational agriculture students currently engaged in farming or employed in off-farm agricultural or mechanical occupations related to the vocational agriculture instructional program is 38.47, when excluding those unavailable for employment.

2. Longer enrollment in vocational agriculture seems to increase the chances of eventual employment in a field related to the instructional phases of the program, including farming, off-farm agricultural occupations, and mechanical occupations. The percentage of frequency within each of these categories increases relative to the length of enrollment in vocational agriculture.

3. At 0.33%, unemployment among former vocational agriculture students is negligible, even when considering the high employment rate existing within the state of Washington during the period under study.

Implications for Further Study

Certain further problems are posed as a result of the study. Because the percentage engaged in farming is higher among the older age group, it would be interesting to study the percentage of former students so engaged in another ten years. It would be helpful, too, to study the personal reactions of former students to the vocational agriculture instructional program's suitability as preparation for whatever employment in which they are presently engaged, whether obviously related or not.

Data not reported in this study, were collected on a similar group of former high school students without a record of vocational agriculture enrollment. This group of 559 former students had similar accumulative grade point averages and graduated or dropped from the same high schools during the same years. These data, when analyzed, will be the topic for another report with the objective of comparing groups, with and without vocational agriculture, that have similar geographic exposure to employment opportunity.

APPENDIX A

March 9, 1966

Agriculture Instructor

Dear _____

Your school has been selected to provide data for "A Comparative Survey of the Occupational Status of Former Vocational Agriculture Students in the State of Washington." It is sincerely hoped that you will provide your urgently needed assistance to this project funded by the State Board for Vocational Education and being conducted by Washington State University.

We are prepared to offer the modest honorarium of $25.00 for your cooperation. Perhaps this sum will help you to justify the time necessary to gather data. More importantly, the data are necessary to provide an evaluation of the effectiveness of programs of vocational agriculture.

Some current vocational education programs, including vocational agriculture, have been accused of training for unemployment. Earlier studies in Virginia and Arizona would indicate that the reverse is true and that, in fact, former vocational agriculture students have an excellent employment rate. We need to determine the record in our state.

I am enclosing a manual of procedures and survey form instructions with a supply of survey forms which should be self explanatory.

In addition to the honorarium you will be provided an individual analysis of data for your school which should be helpful in local evaluation and promotion.

Sincerely yours,

JOEL H. MAGISOS
Teacher Educator and
State Supervisor
Agricultural Education

JHM: slw

Enc.

Occupational Status Study
Agricultural Education
Washington State University

(1) _____ School

(2) _____ Investigator

(3) Student	(4) Years Enrolled In Vocational Agriculture	(5) Year Graduated From High School	(6) Year Dropped From High School	(7) Accumulative High School G. P. A.	Current Employment	
					(8) Kind of work, Currently Engaged	(9) Employer Name, Address

APPENDIX C

OCCUPATIONAL DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS IN WASHINGTON WHO GRADUATED OR DROPPED OUT OF HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65

Occupational Group	Number of Students	Percentage	Percentage Excluding Those Unavailable for Employment
FARMING			
Full-time Farming	31	3.90	5.14
Part-time Farming *	34	4.28	5.64
Total	65	8.18	10.78
OFF FARM AGRICULTURAL OCCUPATIONS			
Service and Supply	44	5.54	7.30
Processing and Marketing	7	.88	1.16
Professional and Technical	9	1.13	1.49
Colleges and Vocational Schools	35	4.41	5.80
Total	95	11.96	15.75
MECHANICAL OCCUPATIONS			
Building Construction	5	.63	.83
Woodworking	11	1.39	1.82
Mechanics	14	1.76	2.32
Machinist and Metal	28	3.53	4.64
Machine Operation	9	1.13	1.49
Electrical	5	.63	.83
Total	72	9.07	11.94
NONAGRICULTURAL OCCUPATIONS			
Business and Industry	247	31.11	40.96
Professional and Technical	35	4.41	5.80
College and Vocational School	90	11.33	14.93
Total	372	46.85	61.69
UNAVAILABLE FOR EMPLOYMENT			
Military Service	174	21.92	
Deceased	13	1.64	
Disabled	3	.38	
Other	1	.13	
Total	192	24.07	
UNEMPLOYED	2	.25	.33
UNKNOWN	31	3.90	5.14
TOTAL *	829	104.28	105.63

* Part-time farmers are reported twice resulting in totals exceeding 100%.

APPENDIX D

OCCUPATIONAL DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961 62, and 1964-65, BY SCHOOL YEAR

Occupational Group	Year Graduating or Dropping Out							
	1956		1959		1962		1965	
	No.	%	No.	%	No.	%	No.	%
FARMING								
Full-time Farming	8	4.23	11	6.25	7	3.78	5	2.05
Part-time Farming *	11	5.82	7	3.98	8	4.32	8	3.28
Total	19	10.05	18	10.23	15	8.10	13	5.33
OFF-FARM AGRICULTURAL OCCUPATIONS								
Service and Supply	6	3.17	10	5.68	16	8.65	12	4.92
Processing and Marketing	3	1.59	1	.57	2	1.08	1	.41
Professional and Technical	2	1.06	3	1.70	2	1.08	2	.82
College and Vocational School	--	--	2	1.14	7	3.78	26	10.65
Total	11	5.82	16	9.09	27	14.59	41	16.80
MECHANICAL OCCUPATIONS								
Building Construction	3	1.59	--	--	2	1.08	--	--
Woodworking	4	2.12	2	1.14	4	2.16	1	.41
Mechanics	5	2.65	2	1.14	2	1.08	5	2.05
Machinist and Metal	12	6.34	7	3.97	4	2.16	5	2.05
Machine Operators	3	1.59	3	1.70	--	--	3	1.23
Electrical	3	1.59	2	1.14	--	--	--	--
Total	30	15.88	16	9.09	12	6.48	14	5.74
NONAGRICULTURAL OCCUPATIONS								
Business and Industry	81	42.86	74	42.05	47	25.41	45	18.44
Professional and Technical	23	12.16	8	4.55	2	1.08	2	.82
College and Vocational School	5	2.65	13	7.38	20	10.81	52	21.32
Total	109	57.67	95	53.98	69	37.30	99	40.58
UNAVAILABLE FOR EMPLOYMENT								
Military Service	13	6.88	22	12.50	60	32.44	79	32.38
Deceased	1	.53	6	3.41	3	1.63	3	1.23
Disabled					1	.54	2	.82
Other					1	.54		
Total	14	7.41	28	15.91	65	35.15	84	34.43
UNEMPLOYED					1	.54	1	.41
UNKNOWN	17	8.99	10	5.68	4	2.16	--	--
TOTAL *	200	105.82	183	103.98	193	104.32	252	103.29

* Part-time farmers are reported twice resulting in totals exceeding 100%.

APPENDIX E

OCCUPATIONAL DISTRIBUTION OF FORMER VOCATIONAL AGRICULTURE STUDENTS, BY NUMBER OF YEARS OF VOCATIONAL AGRICULTURE, WHO GRADUATED OR DROPPED FROM HIGH SCHOOL IN 1955-56, 1958-59, 1961-62, and 1964-65

Occupational Group	Years of Vocational Agriculture							
	1		2		3		4	
	No.	%	No.	%	No.	%	No.	%
FARMING								
Full-time Farming	2	2.13	2	1.43	6	3.33	21	5.52
Part-time Farming *	3	3.19	7	5.00	2	1.11	22	5.79
Total	5	5.32	9	6.43	8	4.44	43	11.31
OFF-FARM AGRICULTURAL OCCUPATIONS								
Service and Supply	3	3.19	8	5.71	12	6.67	21	5.52
Processing and Marketing	1	1.06	2	1.43	1	.56	3	.79
Professional and Technical	--	--	2	1.43	4	2.22	3	.79
Colleges and Vocational Schools	2	2.13	4	2.86	10	5.55	19	5.00
Total	6	6.38	16	11.43	27	15.00	46	12.10
MECHANICAL OCCUPATIONS								
Building Construction			1	.72	1	.56	3	.78
Woodworking	1	1.06	3	2.14	3	1.67	4	1.05
Mechanics	2	2.13	3	2.14			9	2.37
Machine and Metal	3	3.19	3	2.14	7	3.89	15	3.95
Machine Operator	--	--	2	1.43	2	1.11	5	1.32
Electrical	--	--	--	--	--	--	5	1.32
Total	6	6.38	12	8.57	13	7.23	41	10.79
NONAGRICULTURAL OCCUPATIONS								
Business and Industry	23	24.47	35	25.00	51	28.33	138	36.32
Professional and Technical	3	3.19	9	6.43	8	4.44	15	3.94
College and Vocational School	19	20.21	19	13.57	26	14.44	26	6.84
Total	45	47.87	63	45.00	85	47.21	179	47.10
UNAVAILABLE FOR EMPLOYMENT								
Military Service	22	23.41	38	27.14	33	18.34	81	21.32
Deceased	4	4.26	1	.71	3	1.67	5	1.32
Disabled	--		--		2	1.11	1	.26
Other	--		1	.71	--		--	
Total	26	27.67	40	28.56	38	21.12	87	22.90
UNEMPLOYED	1	1.06	1	.71	--		--	
UNKNOWN	8	8.51	6	4.29	11	6.11	6	1.58
TOTAL *	97	103.19	147	104.99	182	101.11	402	105.78

* Part-time farmers are reported twice resulting in totals exceeding 100%.